General

Guideline Title

2013 UK national guideline for the management of lymphogranuloma venereum.

Bibliographic Source(s)

White J, O'Farrell N, Daniels D. 2013 UK national guideline for the management of lymphogranuloma venereum: Clinical Effectiveness Group of the British Association for Sexual Health and HIV (CEG/BASHH) guideline development group. Int J STD AIDS. 2013 Aug;24(8):593-601. [55 references] PubMed

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Clinical Effectiveness Group, British Association for Sexual Health and HIV (BASHH). National guideline for the management of lymphogranuloma venereum (LVG). London (UK): British Association for Sexual Health and HIV (BASHH); 2006. 14 p. [40 references]

Regulatory Alert

FDA Warning/Regulatory Alert

Note from the National Guideline Clearinghouse: This guideline references a drug(s) for which important revised regulatory and/or warning information has been released.

- May 12, 2016 – Fluoroquinolone Antibacterial Drugs : The U.S. Food and Drug Administration (FDA) is advising that the serious side effects associated with fluoroquinolone antibacterial drugs generally outweigh the benefits for patients with sinusitis, bronchitis, and uncomplicated urinary tract infections who have other treatment options. For patients with these conditions, fluoroquinolones should be reserved for those who do not have alternative treatment options.

Recommendations

Major Recommendations

Levels of evidence (I-IV) and grades of recommendation (A-C) are defined at the end of the "Major Recommendations" field.

New Information in This Guideline Since 2006 Publication

Aetiology and Epidemiology

- Lymphogranuloma venereum (LGV) is now hyperendemic among men who have sex with men (MSM) in the United Kingdom (UK); higher levels than in 2005
- No evidence of significant heterosexual spread within the UK
- Cases continue to be mostly MSM, most of whom were also known to be human immunodeficiency virus (HIV) positive and many co-infected with other sexually transmitted infections (STIs), including hepatitis C virus (HCV)

Diagnosis

Commercial molecular diagnostic techniques to detect *Chlamydia trachomatis* (*C. trachomatis*) remain the primary test of choice, with referral of *C. trachomatis*-positive specimens for molecular tests to confirm the presence of LGV-associated deoxyribonucleic acid (DNA)

Management

First-line treatment remains doxycycline 100 mg twice a day (BD) for 3 weeks. Evidence for the role of other antibiotics remains scarce, but azithromycin in multiple-dose regimens may be preferable to erythromycin.

Diagnosis

In the past, the diagnosis of LGV has often been one of exclusion after other causes of genital ulcer disease (GUD) or inguinal lymphadenopathy have been ruled out. In the case of anorectal syndrome, particularly in MSM, the diagnosis is based on clinical suspicion (e.g., combination of signs of proctocolitis, inguinal lymphadenopathy and history of genital ulcer would be highly suggestive) after the exclusion of other aetiologies of proctitis. Even when LGV is suspected, investigations for other potentially co-existing STIs must be undertaken, in particular for gonorrhoea, herpes simplex virus and syphilis.

Positive diagnosis of LGV remains difficult in resource-poor settings, requiring a combination of good clinical acumen and supportive investigations. LGV can be suspected in the presence of positive chlamydial serology, isolation of *C. trachomatis* from the infected site or histological identification of *C. trachomatis* in infected tissue. Traditional methods for LGV diagnosis have been reviewed elsewhere, but modern techniques now rely on nucleic acid amplification tests (NAATs). The assays have high sensitivity and specificity and are able to detect LGV-associated DNA, not only from genital swabs but also rectal and throat swabs, urine, bubo pus, lymph node aspirates and biopsy specimens.

The identification of rectal polymorphonuclear leucocytes (PMNLs) from rectal swabs is predictive of LGV proctitis, especially in HIV-positive MSM, with levels of >10 and >20 PMNLs per high-power field both shown to be significant.

Testing guidelines for referral of specimens for LGV DNA testing have been developed by the Sexually Transmitted Bacteria Reference Laboratory/Scottish Reference Laboratory (STBRL; Public Health England [PHE], UK).

Collection of Specimens

Chlamydiae are intracellular organisms so samples should aim to contain cellular material, which can be obtained from:

- The ulcer base exudate or from rectal mucosa
- Aspiration of enlarged or fluctuant lymph nodes or buboes; after topical disinfection, a 21-gauge needle should be inserted into the lymph node through healthy adjacent tissue and the pus aspirated into a syringe; a small volume (<0.5 mL) saline solution may be injected and re-aspirated for non-fluctuant nodes. If using culture, bubo pus is best homogenized in tissue culture medium before inoculation; if using a *C. trachomatis* NAAT, express pus onto the swab and transport to the laboratory in the standard collection kit for that assay.
- Rectal and pharyngeal swabs from MSM and women exposed at those sites; these should be collected as recommended in British Association for Sexual Health and HIV (BASHH) guidelines
- A urethral swab or first-catch urine specimen; these can be used when urethritis and/or inguinal lymphadenopathy is present and LGV is suspected as the cause, as well as a swab from any suspected primary lesion

Main Diagnostic Techniques

1. Detection of *C. trachomatis* nucleic acid (DNA/ribonucleic acid [RNA]) by NAATs such as polymerase chain reaction (PCR), strand displacement amplification (SDA) or transcription mediated amplification (TMA); these methods are now established for routine testing of urethral, cervical, urine, rectal and pharyngeal specimens and are highly sensitive and specific, including from the rectal site; *C. trachomatis*-positive samples should be confirmed by real-time PCR for LGV-specific DNA in cases of suspected LGV; only detection of LGV DNA confirms the diagnosis. The current guidelines from the STBRL/Scottish Reference Laboratory advise that LGV DNA testing should only be performed on specimens that have been confirmed as *C. trachomatis* positive at the local laboratory using a NAAT and have been sourced

from either a symptomatic patient or a direct sexual contact. Either the residual processed NAAT specimen or a dry unprocessed specimen will be accepted.
or

2. Culture on cycloheximide-treated McCoy cells of material from suspected LGV lesions has a sensitivity of 75% to 85% at best, and less for bubo aspirates; this method is labour-intensive, expensive and of increasingly restricted availability.
or

3. Chlamydia serology. Four types of techniques have been used: the complement fixation (CF) test, the single L-type immunofluorescence test, the microimmunofluorescence test (micro-IF) and the anti-major outer membrane protein (MOMP) immunoglobulin A (IgA) assay. In general, a four-fold rise in antibody or single-point titres of >1/64 and >128 for the micro-IF test has been considered positive, as only an invasive infection such as that caused by LGV could be responsible for such high titres. The test lacks sensitivity for the earlier manifestations of LGV such as ulcers, and a high titre in the absence of symptoms cannot confirm LGV. It is only performed in a few specialised laboratories. Dutch investigators showed the anti-MOMP IgA to be the most useful assay for rectal LGV infection but sensitivity and specificity reached only ~75% in asymptomatic MSM with rectal *C. trachomatis*. Serology cannot necessarily distinguish past from current LGV infection, which might prove restrictive given the high number of recurrent LGV infections now seen in MSM.

Other Methods

Histology of the lymph nodes shows follicular hyperplasia and abscesses, but such findings are not specific; nonetheless, histopathologists need to be alert to these changes and include LGV in the differential diagnosis. In a recent study of 12 anorectal biopsies from MSM with LGV, cryptitis and crypt abscesses without distortion of crypt architecture were the most common findings.

Distinguishing LGV From Non-LGV Serovars

Restriction fragment length polymorphism (RFLP) analysis of *C. trachomatis*-positive specimens is now used to distinguish LGV-associated serovars from oculogenital *C. trachomatis*. Sequencing, which is increasingly widely available, is the method now recommended by the Health Protection Agency (HPA) for genotyping, though various assays have been developed for this purpose. These techniques have been applied with great success on anorectal specimens collected from patients with proctitis during the recent LGV outbreaks in Western Europe.

Management

General Advice

1. Patients should be informed that LGV is an invasive bacterial STI that is curable with antibiotics. Left untreated it can have serious and permanent adverse sequelae.
2. Symptoms should resolve within 1 to 2 weeks of commencing antibiotic therapy.
3. Patients should be advised to avoid unprotected sexual intercourse until they and their partners(s) have completed treatment and follow-up.
4. Patients should be given a detailed explanation of their condition with particular emphasis on the long-term implications for the health of themselves and their partners(s). This should be reinforced by giving them clear and accurate written information.
5. High rates of incident HIV and HCV infections have been observed in LGV-infected MSM in the recent outbreaks and may reflect ongoing inflammatory proctitis. HIV risk reduction advice and interventions should be offered to HIV-negative MSM, focusing not only on risks of unprotected anal sex but also extended to risks associated with traumatic anoreceptive practices (including fisting, sex toy use), serosorting and recreational drug use in this population. Anal enema use has been associated with LGV infection in MSM and they should be warned of possible transmission via shared equipment for rectal douching.

Further Investigations

Screening for other possible causes of GUD should be arranged where relevant, i.e., diagnostic testing for *Haemophilus ducreyi*, *Treponema pallidum*, herpes simplex virus and *Klebsiella/Calymmatobacterium granulomatis* (see BASHH guidelines on chancroid, syphilis, genital herpes and donovanosis, respectively). *Neisseria gonorrhoeae*, syphilis and herpes can also cause proctitis and these infections should be tested for in addition to *C. trachomatis*. LGV in Europe is often associated with HIV and HCV infections and serological screening for these is therefore strongly recommended.

Lymph node aspiration and even biopsy of relevant lesions may be needed to distinguish LGV from atypical infections and neoplasia.

Treatment

No controlled, double-blind treatment trials of LGV have been published. The low incidence of the disease in industrialized nations, its complex

presentation and its natural history, marked by spontaneous remissions and exacerbations, have precluded any rigorous evaluation of management. Only a single comparative trial published in 1957 demonstrated that the duration of buboes in patients receiving tetracycline, sulfadiazine or chloramphenicol was significantly shorter than in patients managed by non-specific supportive measures alone. Subsequent observations have reported the successful use of tetracycline, minocycline and rifampicin. Early treatment is important to prevent or reduce the chronic phase. Prolonged treatment (at least 3 weeks) is the norm and more than one course of therapy, alternating some of the above antibiotics, may be necessary for chronic cases.

On the basis of the known response of *C. trachomatis* to antibiotics such as doxycycline, tetracycline and erythromycin in uncomplicated infections, recommendations have been made and summarized in Table 1 in the original guideline document.

Recommended Regimens

1st choice: Doxycycline 100 mg twice daily orally for 21 days (or tetracycline 2 g daily or minocycline 300 mg loading dose followed by 200 mg twice daily) (IIb, III or IV, B).

2nd choice: Erythromycin 500 mg four times daily orally for 21 days (IV, B). Azithromycin 1 g weekly for 3 weeks should also be considered.

The rationale for longer regimens relates to the systemic nature of LGV infection. In one recent study, rectal swabs for *C. trachomatis* NAATs took up to 16 days to become negative in LGV proctitis, in contrast to non-LGV chlamydia, where DNA was undetectable after 7 days.

A single case of clinical failure with extended doxycycline therapy has been reported in an HIV negative MSM with LGV DNA-positive bilateral inguinal buboes and an anal ulcer. He subsequently responded to treatment with moxifloxacin 400 mg daily for 10 days; no isolate was available for resistance testing. No other treatment failures with doxycycline have been reported.

Alternative Regimens

Azithromycin

The activity of azithromycin against *C. trachomatis* suggests that it may be effective in multiple dose regimens over 2 to 3 weeks, but clinical data on its use are lacking. Several case reports of rectal LGV in MSM have shown clearance with azithromycin regimens of 1 g stat and 1 g weekly for 3 weeks (IV, C). If effective, many clinicians may prefer a multiple-dose regimen of azithromycin to erythromycin due to improved tolerability.

Fluoroquinolone-based therapy with active antichlamydial agents such as ofloxacin and moxifloxacin are expected to be effective in LGV infections but, apart from the above case, no reports of their use in LGV are available. A course of at least 2 weeks would be advisable if clinical necessity warranted their use (IV, C) and test of cure should be performed.

These recommended treatment regimens are similar to those of Centers for Disease Control (CDC) (2010) and European (2010) guidelines. The vast majority of cases during the recent LGV outbreaks were successfully treated with standard 3-week courses of doxycycline. Clearly, the current outbreaks afford the opportunity to conduct randomized comparative trials of newer/shorter drug regimens, as are used routinely in resource-poor settings (e.g., doxycycline 100 mg twice daily orally for 14 days).

Accompanying Measures

Fluctuant buboes should be aspirated through healthy adjacent skin and surgical incision is usually contraindicated due to risk of complications such as sinus formation. Adequate analgesia should be provided for painful LGV infections.

Allergy

Patients allergic to tetracyclines should be treated with either the erythromycin or the extended azithromycin regimen. Test of cure at the completion of treatment is advised.

Treatment for Pregnant or Breastfeeding Women

Pregnant and breastfeeding women should be treated with the erythromycin regimen. Extended azithromycin therapy might be considered in this scenario due to improved tolerability, but no published data are available to guide safety, dosing and efficacy in pregnancy. Test of cure is advised in pregnancy if rectal or genital LGV are diagnosed.

HIV-Positive Individuals

LGV occurs commonly in HIV-infected individuals and they should receive the same regimens as those who are HIV negative. There are few significant drug–drug interactions between commonly used antiretroviral agents and doxycycline.

Adverse Reactions to Treatment

The most common doxycycline side effects are upper gastrointestinal problems including dyspepsia and nausea; diarrhoea is less frequent. These might be mitigated by taking doses after meals. Photosensitivity can occur, especially in climates with abundant sunshine, and patients should be warned of this and advised not to expose themselves unduly. Oesophageal ulceration can occur from prolonged doxycycline mucosal contact, especially with the capsule formulations. It is recommended that doxycycline be taken with a large glass of water and that patients not lie down for at least 20 min after swallowing the medication.

The most common erythromycin side effects are also gastrointestinal problems including mild diarrhoea, stomach pain, nausea and vomiting.

Contact Tracing and Treatment

Persons who have had sexual contact with a patient who has LGV within the 4 weeks before onset of the patient's symptoms, or the last 3 months if asymptomatic LGV is detected, should be examined, tested for rectal, pharyngeal, urethral and/or cervical chlamydial infection (as applicable) and receive presumptive treatment with 21 days of doxycycline 100 mg twice daily or an alternative regimen for the same duration (IV, C).

Follow-Up

All patients should be followed clinically until signs and symptoms have resolved. This usually occurs within 1 to 2 weeks for early infection, including MSM proctitis, but may take up to 3 to 6 weeks for longstanding infections or sequelae. Some early LGV infections can be asymptomatic when first diagnosed and then might become symptomatic prior to or during the initial days of treatment; these symptoms should settle promptly. Routine test of cure for LGV is no longer considered necessary if the recommended 21-day course of doxycycline has been completed. If indicated, test of cure should be performed at 2 weeks after the completion of LGV treatment to avoid detection of nonviable *C. trachomatis* DNA/RNA (IV, C).

Follow-up should also check that adequate partner notification has been completed, any patient concerns have been addressed and follow-up testing for syphilis and blood-borne viruses including hepatitis B, C and HIV done where necessary. In the recent MSM LGV epidemic, incident cases of both HIV and HCV have been observed and serological testing should be offered for both infections after appropriate window periods have elapsed according to relevant local guidelines. Abnormal liver enzymes should prompt further testing for HCV RNA as HCV antibody seroconversion in HIV-positive MSM might be delayed beyond 12 months.

Patients with fibrotic lesions or fistulae are beyond the stage where antibiotic therapy is effective and surgical repair, including reconstructive genital surgery, often must be considered.

Definitions:

Levels of Evidence

Level	Type of Evidence
Ia	Evidence obtained from meta-analysis of randomised controlled trials
Ib	Evidence obtained from at least one randomised controlled trial
IIa	Evidence obtained from at least one well-designed controlled study without randomisation
IIb	Evidence obtained from at least one type of well-designed quasi-experimental study
III	Evidence obtained from well-designed, non-experimental descriptive studies, such as comparative studies, correlation studies and case control studies
IV	Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities

Grading of Recommendations

Grade	Recommendation
A (Evidence levels Ia, Ib)	Requires at least one randomised controlled trial as part of the body of literature of overall good quality and consistency addressing the specific recommendation
B (Evidence levels IIa, IIb, III)	Requires availability of well-conducted clinical studies but no randomised clinical trials on the topic of recommendation
C (Evidence level	Requires evidence from expert committee reports or opinions and/or clinical experience of respected authorities.

Grade	Recommendation
IV	Indicates absence of directly applicable studies of good quality

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Lymphogranuloma venereum (LGV) infection

Guideline Category

Diagnosis

Management

Treatment

Clinical Specialty

Infectious Diseases

Obstetrics and Gynecology

Urology

Intended Users

Advanced Practice Nurses

Nurses

Physician Assistants

Physicians

Public Health Departments

Guideline Objective(s)

To offer recommendations on the diagnosis, treatment and health promotion principles for the effective management of lymphogranuloma venereum (LGV) infection

Target Population

People aged 16 years and older presenting to services offering level 3 care in sexually transmitted infection (STI) management within the United Kingdom (UK)

Interventions and Practices Considered

Diagnosis

1. Collection and testing of specimens of *Chlamydia trachomatis* (*C. trachomatis*) deoxyribonucleic acid/ribonucleic acid (DNA/RNA) by nucleic acid amplification tests (NAATs):
    - Polymerase chain reaction (PCR)
    - Strand displacement amplification (SDA)
    - Transcription mediated amplification (TMA)
2. Culture of material from suspected lymphogranuloma venereum (LGV) lesions on cycloheximide-treated McCoy cells
3. Chlamydia serology:
    - Complement fixation (CF) test
    - Single L-type immunofluorescence test
    - Micro-immunofluorescence test (micro-IF)
    - Anti-major outer membrane protein (MOMP) immunoglobulin A (IgA) assay
4. Restriction fragment length polymorphism (RFLP) analysis of *C. trachomatis*-positive specimens

Management/Treatment

1. Provision of information and advice to patient
2. Further investigations:
    - Screening for other possible causes of genital ulcer disease (GUD), i.e., *Haemophilus ducreyi*, *Treponema pallidum*, herpes simplex and *Klebsiella/Calymmatobacterium granulomatis*
    - Lymph node aspiration or biopsy
3. Antibiotic therapy:
    - Doxycycline
    - Tetracycline
    - Erythromycin
    - Azithromycin
    - Minocycline
    - Moxifloxacin
4. Aspiration of fluctuant buboes
5. Management of specific patient populations:
    - Pregnant or breastfeeding women
    - Human immunodeficiency virus (HIV) infected individuals
6. Contact tracing, testing and treatment
7. Surgical management of patients with fibrotic lesions or fistulae
8. Follow-up until resolution of signs and symptoms

Major Outcomes Considered

- Labour intensiveness, expense, sensitivity, specificity, and availability of diagnostic techniques
- Efficacy and cost of pharmacological treatment
- Cure rate
- Rate of testing for:
    - Human immunodeficiency virus (HIV)
    - Hepatitis C infection
    - Syphilis infection

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Searches of Unpublished Data

Description of Methods Used to Collect/Select the Evidence

The guideline was produced according to specifications set out in the Clinical Effectiveness Group's (CEG) 2010 document "Framework for guideline development and assessment" (see the "Availability of Companion Documents" field). The previous guideline document was based on the published Centers for Disease Control (CDC) Guidelines for Treatment of Sexually Transmitted Diseases (STD) supplemented by a MEDLINE search to 2005. The 2013 guideline document has updated the previous guideline by searching MEDLINE from 2005 to 2012 for published articles in any language using the search terms: "Lymphogranuloma venereum (LGV)", "LGV", "*Chlamydia trachomatis* diagnosis", "*Chlamydia trachomatis* treatment" and "rectal Chlamydia." There were no entries in the Cochrane Library of any randomized clinical trials on lymphogranuloma venereum. In addition, abstracts and proceedings from the most recent International Conferences on Acquired Immune Deficiency Syndrome (AIDS), Meetings of the International Society for STD Research (ISSTDR) and British Association for Sexual Health and HIV (BASHH) Spring Meeting were reviewed.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Levels of Evidence

Level	Type of Evidence
Ia	Evidence obtained from meta-analysis of randomised controlled trials
Ib	Evidence obtained from at least one randomised controlled trial
IIa	Evidence obtained from at least one well-designed controlled study without randomisation
IIb	Evidence obtained from at least one type of well-designed quasi-experimental study
III	Evidence obtained from well-designed, non-experimental descriptive studies, such as comparative studies, correlation studies and case control studies
IV	Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities

Methods Used to Analyze the Evidence

Systematic Review

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Guideline development is undertaken by a multi-disciplinary writing committee with membership determined in a transparent manner. The chair is chosen by the Clinical Effectiveness Group (CEG). The CEG lead then discusses with the chair what suggestions they might have for members from other disciplines. The additional members of the group are then invited by the CEG. Writing committee membership includes relevant professional groups (for example genitourinary medicine physicians, nurses, health advisors, pharmacists, microbiologists and other professionals from allied specialities as appropriate) and when relevant this will involve working with the appropriate British Association for Sexual Health and HIV (BASHH) Special Interest Group (SIG) and the BASHH audit group.

Patients' views and preferences are sought and considered and the process documented. This may include patient representative involvement in the writing committee, information obtained from patient interview or surveys during the writing and/or piloting process, reviewing published work on patient experiences or involving patient associations. The chair of the writing group identifies an appropriate member such as the Health Advisor to get patient feedback on the guideline. BASHH is currently developing a public panel to assist with its work and in the future this group could be approached to assist in guideline development.

Recommendations are formulated with consideration of their health benefits, side effects and risks, with evidence presented in the guideline that these issues have been addressed. Each recommendation is linked to the supporting evidence with a list of relevant references.

Consideration is given to pragmatic and organisational issues relevant to the guideline. This is sought during and may emerge from the piloting of the guideline.

The authors consider the financial cost implications of recommendations made. Where disagreement arises within the writing committee with regard to recommendations the chair attempts to resolve these (for example by a voting system or formal consensus method). The process is documented and reported to the CEG editor. When this is not possible the CEG will review the evidence themselves and invite the chair and possibly other members of the writing committee to a meeting to agree a resolution and final recommendations.

Rating Scheme for the Strength of the Recommendations

Grading of Recommendations

Grade	Recommendation
A (Evidence levels Ia, Ib)	Requires at least one randomised controlled trial as part of the body of literature of overall good quality and consistency addressing the specific recommendation
B (Evidence levels IIa, IIb, III)	Requires availability of well-conducted clinical studies but no randomised clinical trials on the topic of recommendation
C (Evidence level IV)	Requires evidence from expert committee reports or opinions and/or clinical experience of respected authorities. Indicates absence of directly applicable studies of good quality

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Clinical Validation-Pilot Testing

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

The draft guideline was appraised with the Appraisal of Guidelines for Research and Evaluation (AGREE) instrument, posted on the British

Association for Sexual Health and HIV (BASHH) website for a consultation period of 3 months and piloted in a sample of clinics. In response to the consultation, suitable amendments were made to the guideline and the final draft was submitted to the Clinical Effectiveness Group (CEG).

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

No controlled double blind treatment trials have been published on lymphogranuloma venereum. The type of supporting evidence is graded and identified for selected recommendations (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

- Appropriate diagnosis and management of patients with lymphogranuloma venereum (LGV)
- Early treatment is important to prevent or reduce the chronic phase

Potential Harms

- The most common doxycycline side effects are upper gastrointestinal problems including dyspepsia and nausea; diarrhoea is less frequent. These might be mitigated by taking doses after meals. Photosensitivity can occur, especially in climates with abundant sunshine, and patients should be warned of this and advised not to expose themselves unduly. Oesophageal ulceration can occur from prolonged doxycycline mucosal contact, especially with the capsule formulations. It is recommended that doxycycline be taken with a large glass of water and that patients not lie down for at least 20 min after swallowing the medication.
- The most common erythromycin side effects are also gastrointestinal problems including mild diarrhoea, stomach pain, nausea and vomiting.
- Allergic reactions to tetracyclines

Contraindications

Contraindications

Surgical incision of fluctuant buboes is usually contraindicated due to risk of complications such as sinus formation.

Qualifying Statements

Qualifying Statements

- No controlled double blind treatment trials have been published on lymphogranuloma venereum. The low incidence of the disease, its complex presentation, and its natural history, marked by spontaneous remissions and exacerbations, have precluded any rigorous evaluation of management.
- Suggestions for diagnostic approaches made in this guideline should be tailored to local resources. *Chlamydia trachomatis* nucleic acid amplification tests (NAATs) and the serological tests recommended may not be available in all laboratories.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Audit Criteria/Indicators

Patient Resources

Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

White J, O'Farrell N, Daniels D. 2013 UK national guideline for the management of lymphogranuloma venereum: Clinical Effectiveness Group of the British Association for Sexual Health and HIV (CEG/BASHH) guideline development group. Int J STD AIDS. 2013 Aug;24(8):593-601. [55 references] PubMed

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

1999 Aug (revised 2013 Aug)

Guideline Developer(s)

British Association for Sexual Health and HIV - Medical Specialty Society

Source(s) of Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Guideline Committee

Clinical Effectiveness Group (CEG)

Composition of Group That Authored the Guideline

Guideline Development Group: John White, Department of Genitourinary medicine, Guy's & St Thomas' NHS Foundation Trust, London, UK; Nigel O'Farrell, Ealing Hospital NHS Trust, London, UK; David Daniels, West Middlesex Hospital NHS Trust, London, UK

Clinical Effectiveness Group (CEG) Members: Dr. Keith Radcliffe (*Chair*); Dr. Mark FitzGerald; Dr. Deepa Grover; Dr. Steve Higgins; Dr. Margaret Kingston; Dr. Neil Lazaro; Dr. Louise Melvin; Dr. Ann Sullivan

Financial Disclosures/Conflicts of Interest

All members of the guideline writing committee completed the British Association for Sexual Health and HIV (BASHH) conflict of interest declaration detailed below at the time the guideline's final draft was submitted to the Clinical Effectiveness Group (CEG). The details of any actual or potential declarations of interest will be documented by the CEG at this point in the guideline.

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Clinical Effectiveness Group, British Association for Sexual Health and HIV (BASHH). National guideline for the management of lymphogranuloma venereum (LVG). London (UK): British Association for Sexual Health and HIV (BASHH); 2006. 14 p. [40 references]

Guideline Availability

Electronic copies: Available in Portable Document Format (PDF) from the British Association for Sexual Health and HIV Web site .

Availability of Companion Documents

The following are available:

- Clinical Effectiveness Group. British Association for Sexual Health and HIV: framework for guideline development and assessment. London (UK): British Association for Sexual Health and HIV (BASHH); 2010. 18 p. Electronic copies: Available in Portable Document Format (PDF) from the British Association for Sexual Health and HIV (BASHH) Web site .
- Health Protection Agency (HPA) lymphogranuloma venereum (LGV) enhanced surveillance webpage. 2013 Aug. Electronic copies: Available from the Health Protection Agency Web site .

In addition, auditable outcomes are provided in the original guideline document .

Patient Resources

The following is available:

- LGV: a new infection affecting gay and bisexual men. Patient information leaflet. London (England): Terrence Higgins Trust. 2010 Jun. 6 p.

Electronic copies: Available in Portable Document Format (PDF) from the British Association for Sexual Health and HIV Web site .

NGC Status

This summary was completed by ECRI on December 8, 2000. The information was verified by the guideline developer on January 12, 2001. This summary was updated on June 24, 2002. This NGC summary was updated by ECRI Institute on December 12, 2007. The updated information was verified by the guideline developer on February 7, 2008. This summary was updated by ECRI Institute on January 22, 2014. The updated information was verified by the guideline developer on February 22. 2014. This summary was updated by ECRI Institute on May 18, 2016 following the U.S. Food and Drug Administration advisory on Fluoroquinolone Antibacterial Drugs.

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